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THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.

Vol. XIII **APRIL, 1943** **No. 4**

RULES GOVERNING THE PHYSICAL EXAMINATION OF ALL GIRLS PARTICIPATING IN GIRLS ATHLETIC ASSOCIATION AND PHYSICAL EDUCATION ACTIVITIES AND THE EXAMINATION OF GIRLS FOR REFERRAL TO SPECIAL CLASSES*

General Rules

General:	Allow no acute infectious condition.
Skin:	Allow no gross infection.
Eyes:	Allow no acute infection.
Vision:	With severe visual defects, the amount and type of exercise is to be left to the judgment of the private physician and the school physician. It is advisable not to wear glasses while participating in activity. If worn a note from the parents must be on file assuming responsibility in case of an accident incurred from breaking the glasses.
Ears:	Allow no acute or chronic discharge — the type of activity to be decided by the school physician.
Hearing:	If not assigned to special classes for the hard-of hearing, the activity is to be decided by the school physician.
Nose:	Allow no chronic sinusitis with symptoms; hay-fever, tendency to epistaxis, obstructed nasal breathing — to be left to the judgment of the private physician and the school physician.
Teeth:	Allow no oral sepsis, gingivitis, periodontoclasia for G.A.A.
Heart:	Allow no evidence of caries for G.A.A. Allow pulse rate of 105 in recumbency for three consecutive examinations.

* This report from a committee of women physicians in the Health Service Section of the Los Angeles City Schools is published in the belief that it will be suggestive and helpful to school physicians in other cities.—Editor.

The standards for boys set up by a national committee of the A.S.H.A., were published in the March, 1943 issue of the Journal.

Allow no organic murmurs.
Allow no marked arrythmias.
Allow no functional condition in which exertion would be harmful or contraindicated.
Allow no myocarditis or potential heart disease.
Allow no chorea.

Lungs:
Policy regarding tuberculosis.
All cases should be re-checked every year.
A close observation should be kept on girls who are contacts to active cases.
No physical education should be allowed if weight loss, undue fatigue, or pleurisy are noted.
Primary infections.
1. Positive Mantoux, negative X-ray. No restrictions.
2. Positive Mantoux, hilar gland infections, calcified. No restrictions (if general condition is good) except for strenuous, sustained competitive sports, as basketball.

Re-infection tuberculosis.
1. Arrested cases. As advised by attending physician or clinic.
2. Observation cases. As advised by attending physician or clinic.

Allow no pleurisy or history of pleurisy within one year.
Allow no asthma within six months.
Allow no history of frequent attacks of bronchitis.

Posture:
Allow no structural deformity which would endanger the pupil, herself, or other girls in the class.
Allow no ankylosis of the extremities or the spinal column.
Allow no chronic osteomyelitis.

Menses:
Allow no cramps such as necessitate absence from school.
Allow no too frequent or prolonged menses.

Hernia:
Allow no rupture.

Epilepsy:
To be on the recommendation of the attending physician and the school physician.

Diabetes:	To be on the recommendation of the attending physician and the school physician.
Students with exemption cards on file:	Signed consent slips must be on file for the physical examination for G.A.A.

In all extra-curricular activities such as G.A.A., class and school plays, offices, etc., the approval of the physician may be used as a leverage for the correction of minor defects and faulty health habits.

Rules for the Selection of Girls in the Corrective Classes

All girls should be approved for the corrective classes by the school physician.

General Nutritional Disturbances:	Where postural training is indicated. Orthopedic conditions. Physically below par child. Grossly overweight child.
Vision:	Not eligible for regular gymnasium — on the recommendation of the attending physician.
Nose:	Frequent upper respiratory conditions. Sinusitis with recurring attacks. Nasal obstruction with impaired breathing. Hay-fever.
Heart:	Those who are not eligible for regular gymnasium and who have not been assigned to rest class.
Lungs:	See policy regarding tuberculosis. Idiopathic pleurisy. Asthma with occasional attacks.
Abdomen:	Hernia. Chronic appendicitis.
Menstrual Difficulties:	Dysmenorrhea necessitating absence from school. Too frequent or prolonged menses. Amenorrhea, if physical findings warrant it.
Endocrine Dysfunctions:	On the recommendation of the attending physician and the school physician.
Epilepsy:	On the recommendation of the attending physician and the school physician.
Diabetes:	On the recommendation of the attending physician and the school physician.

Rules for the Selection of Girls in the Rest Classes

All girls should be approved for the rest class by the school physician.

Candidates:

1. Weight and Fatigue
   Markedly underweight, i.e., 20% or more.
   Losing weight when girl is normal as to skeletal type.
   Tiring easily.
2. Nose
   Those with conditions not eligible for corrective classes.
3. Heart
   Organic lesions.
   Tachycardia.
   Arrythmia.
   Recommended by the Heart Board or private physician.
4. Lungs
   Asthma—severe and frequent attacks.
   Bronchitis.
   Potential or incipient tuberculosis.
   Recommended by the Chest Board or private physician.
5. Recent surgery
   Appendectomy—as long as considered advisable by school physician.
   Tonsillectomy—as long as considered advisable by school physician.
6. Recent injuries or accidents
   Skull fractures.
   Concussions.
7. Endocrine disturbances, thyrotoxicosis, etc.
8. Menstrual
   Those cases which in the school physician's opinion are not eligible to corrective classes.
9. Any pupil returning from an absence because of illness should be referred by the registrar to the health co-ordinator or corrective teacher and should not return to full physical activity program until approved by the school physician.
10. Abdomen
    Hernia.
    Chronic appendicitis.
11. Written request of the parent—to be authorized by the school physician.
12. Written request of the private physician—to be authorized by the school physician.
13. Any child who has not been placed in the corrective classes because of epilepsy or diabetes.

Techniques for Group Postural Examinations

Group examinations are important because they screen out all of the more serious cases in the beginning in order that they may be assigned to special groups. The complete examination may be scheduled later.

1. Have pupils stand in line—do not use a set order or procedure as to which segment is checked.
2. Have someone write down defects, using separate sheets of paper for each defect. If the same name appears several times, that individual should receive early attention.
3. It is better to have pupils wear bathing suits or sun suits. If clothing is worn, watch for uneven shoulders, hems, belts, etc. These are often indications of faulty posture. Shoes are a good indication of foot conditions. Learn to note where shoes are worn.
4. Note body types—pay particular attention to lithe and stocky individuals. The medium type is not likely to need special attention even if there are some slight defects. If a lithe individual has no outstanding defects, but shows a tendency to slump, he should be put in a corrective group.
5. Examination:
   a. Group facing front—place fingers on tip of acromion process to detect a high shoulder—notice lines of trapezius coming down the side of the neck.
   b. Check for uneven pelvis by placing thumbs under anterior superior spines and fingers over crest of the ilium. Notice waist angle.
   c. Side view—get line-up from the side, running hand down the back if clothing is worn to determine spinal curves. Notice width of scapulae—should be about three inches apart in lithe type—wider in stocky type.
   d. Examination of legs.
      (1) Front view—feet parallel—look for bow legs or knock knee. Ankles separated and knees touching indicates knock knee. If there is tibial torsion, the knee cap will turn in but is not a true knock knee.
      (2) Lateral view—to examine for back knee, place one hand on back of pelvis and push back on knee with the other hand. If there is back knee there will also be round shoulders and forward head.
   e. Examination of feet—Ask the group to remove shoes and stand with feet parallel. Note if there is tension of the

anterior tibial tendons which indicates attempt to correct foot position. The lines of the inner and outer sides of the ankles should be straight. An angle between the outer malleolus and outer border of the foot indicates pronation. Note the position of the longitudinal arch and scaphoid. Callosities on the big toe and ball of the foot indicate a weak foot.

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Respectfully submitted,

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* * * * *

AN INDIVIDUALIZED APPROACH TO PHYSICIANS AND PARENTS

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An experience with a planned attempt to secure greater cooperation from the private physicians in a large city in a modern immunization program, has been sufficiently successful to merit presentation.

Recent laboratory and clinical evidence has shown that the immunity produced by diphtheria prophylactic injection in infancy and early childhood is not durable in most cases, as was once supposed.[1] It likewise has been established that a "booster" dose of toxoid (0.2 c.c.) administered to children previously inoculated, stimulates and increases the antitoxin titre of the blood out of all proportion to the small dose injected.[2] The New York City Department of Health now recommends that children be given this supplementary or "booster" dose of diphtheria toxoid when entering school—if the primary injections were completed a year previous, or if the Schick test was negative more than six months previously.[3]

The importance of the role that the private physician plays in school health work has long been recognized. In the Flatbush District, private physicians have, over the years, played an increasingly prominent part in the work. For example, in the fall term of the 1941-1942 school year, 75 per cent of the children in the Flatbush Health District of Brooklyn, entering school for the first time, were examined by their family physicians.

To study the degree of the participation of the private physician in the diphtheria immunization program, the records of the entering classes from 16 of the 40 schools in the district were reviewed. It was found that in these 16 schools 365 of the entering children had been examined by a total of 294 private physicians. Information on the reports from the private physicians regarding diphtheria immunization was either omitted altogether, or difficult to interpret. Apparently, 212 or 58 per cent of the children had not received the "booster" dose of toxoid. Two inferences are possible: (1) The private physician gave the "booster" injection but did not report it, or (2) The private physician did not give the immunization. If the former possibility is true it means that he is not aware of the importance of keeping the school health service informed of

the health status of the school children he sees. If the second supposition is correct, it indicates a lack of knowledge regarding the most up-to-date methods of diphtheria immunization. Both situations must be met by making the facts better known to the private practitioner. The New York City Department of Health keeps physicians informed of the latest practices regarding immunizations through various medical channels, including the Quarterly Bulletin of the Department of Health and the County and State medical society journals.

From the facts of this study we assumed that this general method of keeping the medical practitioner informed has not been very effective in this district. It might also be inferred that the health education efforts with parents similarly have not been as effective as hoped. A plan was evolved which took into consideration the pertinent reasons for the apparent lack of full cooperation of the private physicians. It involved an individualized approach with the doctor and parent on the basis of the specific child under the pyhsician's care. In brief, the technique of this personalized health education embraced the following procedures:

(1) The nurses at each of the schools involved interviewed each of the parents where the reports showed the need of supplementary toxoid. The nurses urged the parents to return to their private physicians for this treatment. This conference gave the school nurse the opportunity to explain to the parent the importance of complete diphtheria immunization. The nurses then prepared a list of the names and addresses of these children and the names and addresses of the individual doctors concerned. These lists were sent to the district health office.

(2) The clerical staff of the district office sent each doctor a form letter with the names and addresses of the children he had examined who needed supplementary toxoid. This letter explained the need of the "booster" dose of toxoid and reported the efforts made by the Health Department to have the child return to him for this treatment.

Results:

(1) About two months later, a follow-up investigation was made of the 212 children involved in the study. Of these, 68 or 32 per sent had returned to their physicians and had been given the "booster" injection of toxoid.

(2) To attempt to appraise the long range effect of the procedures described, the records of children entering the same 16 schools the following term (about five months later) were reviewed.

Of the 267 children examined by private physicians during this term only 15 per cent needed supplementary toxoid as compared with 58 per cent before the individualized contact with parent and physician was instituted.

Conclusions:

(1) General health education efforts in diphtheria prophylaxis have not had the desired effect in convincing private physicians and parents of the need for a "booster" dose of toxoid before the child enters school.

(2) The experience here described demonstrates that it is possible through individualized approach to both parents and physicians to materially increase immunizations at the hands of private practitioners.

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* * * * *

Tuberculin Test in Bone Tuberculosis,—Howard and his associates carried out the tuberculin test for ten years on 19 children with bone tuberculosis. The initial threshold reactions of four children at the start of the involvement were 0.1 to 0.01 mg. of old tuberculin. These levels subsequently rose to 0.000,1 to 0.000,000,1 mg. and then receded again to levels of 0.01 and 0.001 mg. with the healing of the process. The sensitivity of a group of seven children followed the same rise and fall, but these children did not appear for treatment at the start of bone involvement. The allergy pattern of five children showed a high plateau of sensitivity for from three to six years, associated with a poor healing ability and the death of one patient from constant spread of the tuberculous infection. All children showed a positive test at the start of infection; one four months before bone destruction could be seen on the roentgenogram. It is concluded that a rise to a high level of sensitivity with a subsequent fall is characteristic of the evolution of the healing process in bone tuberculosis and that sustained high levels of allergy have characterized lesions which have failed to heal. American Review of Tuberculosis, Howard, Johnston and Mitchell, 46, 532, 1942, as abstracted in the Journal of the American Medical Association, Vol. 121, No. 4, Jan. 23, 1943, p. 285.

COUNTY SUPERVISORS OF SPECIAL EDUCATION IN PENNSYLVANIA*

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A unique program in special education has just completed its first year. For the first time in the history of this field there have been appointed, on a state-wide basis, persons whose legal responsibility is that of working solely in rural areas and entirely in the interests of children of exceptional physical and mental condition. Roughly speaking, communities in Pennsylvania having populations of less than 5,000 are considered to be "rural". One fourth of the public school children in the state are in the schools served by these supervisors.

In 1937, largely through the efforts of Dr. Robert G. Bernreuter, now in the department of psychology at Pennsylvania State College, legislation was passed that provided for the appointment of these supervisors in 1939. While the appointments were to be made by the local county superintendents, the salaries and traveling expenses were to be paid by the state. In 1939, however, the funds for the complete program were not available, so the program was started on a small scale, involving three supervisors and seven counties. In 1941 funds for the basic $3,000 salaries and additional travel allowance were provided for the program on a state-wide basis. By August 1942, all thirty-six full-time supervisors were appointed. Practically all of them have had public school teaching experience. Seven of them have their doctorates. Fifteen of the thirty-six are women.

These supervisors are required by law to be certificated in Pennsylvania as teachers, either elementary or secondary, and as public school psychologists. This latter certification represents the completion of sixty-six hours of clinical and educational psychology, including supervised clinical practice. In addition to their being charged with responsibilities for exceptional children, they may be used by juvenile courts to examine children coming from the county areas and can be asked by the county superintendents, to whom they are directly responsible, to assist in the preparation, administration, and interpretation of achievement tests. The areas they serve are determined by law and by the State Council of Education. Those

* Republished by permission from the Journal of Exceptional Children, October, 1942, page 23-25.

counties having more than 550 teachers under the supervision of the county superintendent have full-time supervisors of special education. Counties having less than this number are combined with other such counties and are jointly served by a supervisor. Independent school districts—those having their own superintendents—are not legally entitled to the services of these supervisors.

Fifteen counties each have full-time supervisors. The numbers of teachers under the county superintendents in these counties range from 54 to 2,582, the median number of teachers being about 900. Twenty-one supervisors serve the remaining 51 counties in the state. (Philadelphia County has no such supervisor since the county and city are coterminous). These supervisors serve from 424 to 1,026 teachers, the median number of teachers being approximately 700.

The Department of Public Instruction has steadfastly advocated that the type of program developed by each supervisor should be the one that is appropriate to the area in which he serves, so long as the activities of the supervisor were related in one way or another to the field of special education and did not become generally supervisory or administrative. This has meant that a few supervisors committed themselves primarily to work with only those children on whom teachers and administrators sought help. Others helped inaugurate group-tesing programs in reading readiness, mental capacity, and hearing acuity. Most of them lost no time in taking definite steps to integrate the efforts of various civic, philanthropic, and educational agencies in the interests of exceptional children. Some are working with medical groups in improving the scope and quality of medical examinations. And several are stimulating local action in the establishment of special classes. Probably most significant is the fact that all of them are rendering a very real service to many regular classroom teachers by showing them how they can modify their programs to meet the needs of many of those exceptional children that can not be in special classes.

A number of the county superintendents definitely opposed the inauguration of this program. Now all of them are admittedly enthusiastic about it. Some that most vigorously opposed it and had only part of the time a supervisor available now want the law changed so that they may have a supervisor on a full-time basis.

This change in attitude on the part of these administrators is unquestionably due in large part, if not entirely, to the sensible, enthusiastic and constructive way in which the supervisors undertook their work. They started most fortunately without precedent as

to what should be done. Being themselves, almost without exception, good "applied psychologists," they have studied their jobs intelligently, have started to work cautiously. They have produced tangible results in terms of happier children, have assisted teachers and administrators, and have helped inaugurate screening and remedial procedures that have increased the general efficiency of the school systems in which they worked. That their superintendents felt they were successful is shown by the fact that they were all re-elected for a regular four-year term, about one-third of them at increased salaries.

In tackling their work, they have formed regional groups to discuss common problems. Case-study and report forms have been developed by them and exchanged. Three in-service training meetings have been held for the whole group. An in-service program of this sort is contemplated as a permanent part of the state program.

Fortunately, the program is not being confined to any one group of exceptional children, such as the mentally retarded. While many of those reported by the teachers for study do fall in this group, definite attempts are being made to keep the teachers and administrators aware of the needs of the partially sighted, the hard of hearing, the speech defective, the physically handicapped, and, above all, the mentally superior.

* * * * *

Number of School Nurses Increases,—There are at present 659 school nurses employed in the public schools of the State exclusive of New York City, Buffalo and Rochester, an increase of 48 per cent over the 446 employed in 1932-33.

There are 28 "new" services. Three part-time services have been expanded to full-time positions, 18 nurses are in part-time services, 21 school nurses are in the Army or Navy Nursing Service, 13 nurses have returned to school nursing after an absence of one or more years. Of the 73 nurses new in school service, many are married or not eligible for active war service. Twenty-five school nurses have changed from one position to another within the State. Abstracted from Bulletin to the Schools, University of the State of New York, p. 236.

* * * * *

Nurse Candidates Needed,—The Office of Education asserts that 17,000 new students must enroll in mid-year classes in schools of nursing to meet the quota of the country. High schools are therefore urged to send qualified candidates to schools of nursing in order to supply this pressing war need. Abstracted from Bulletin to the Schools, University of the State of New Yor, p. 236.

HEALTH IN HIGH SCHOOLS*

GERWIN NEHER

A recent investigation of what high school students know, think, and do about health revealed many interesting findings — some generally recognized, others not so well known or, perhaps, disregarded in the school health program. The purpose of this study, which involved 2,415 pupils from thirteen junior and senior high schools of Los Angeles, was to determine the amount and nature of the health knowledge, attitude, status, and practices of high school pupils and to find out what relationships existed between these factors.[1] For purposes of comparison an analysis was made of the differences in these variables when the students were grouped according to school, grade, age, sex, course of study followed, occupation of father, and race.

To obtain this information a measuring instrument was constructed which consisted of a questionnaire to determine the stated health status and practice of high school pupils; a health knowledge test made up of sixty-nine multiple choice items taken from authoritative sources; and an attitude scale designed to determine the nature of attitudes held toward certain health practices. This instrument was called the High School Health Inventory.

Some of the findings of this study stated in summary form are as follows:

1. In general, pupils from schools with an average or higher intelligence level and with a relatively high socio-economic level scored above the others in all four health factors studied.
2. While the pupils who were older and in higher grades tended to be superior in health knowledge and endorsed more favorable health attitudes, they appraised their own health status and practices as inferior to what pupils younger and in the lower grades appraised theirs to be.
3. There was little difference between boys' and girls' health status and practice scores, but girls were superior to boys in health knowledge and attitude with differences that were statistically significant.
4. Pupils enrolled in academic and commercial courses ranked above pupils enrolled in industrial arts and home economics courses on the basis of health practice, knowledge, and attitude. Industrial

* Reprinted from Health Education, Los Angeles City Schools, February, 1943, pp. 4-6.

1. See also Journal of School Health, December, 1942, and January, 1943.

arts pupils ranked highest in health status. Significant differences were present only in the superiority of the academic and commercial pupils to the industrial arts and home economics pupils in health practice, the academic pupils to all other groups in health attitude.

5. Pupils whose fathers were in professional and managerial occupations ranked consistently higher in all four health factors than pupils whose fathers were in the so-called lower-level occupational classifications. Statistically, significant differences were found only in comparisons between the highest ranking and the lowest ranking groups on the basis of health practice, knowledge and attitude.
6. In general, white pupils scored higher than the other racial groups on the basis of the four health factors. It appeared that the higher average intelligence of the group tested accounted largely for the superiority of the white group over other racial groups in health knowledge. There appeared, moreover, to be a tendency for the white pupils to score highest in practices which would be affected by economic status and social standards in the home.
7. There was found to be only slight positive correlation between the health knowledge and attitude of pupils and the stated health status and practice of pupils.

When all the findings of this health study were examined there appeared certain implications important for the school health program. Of special significance was the complete lack of relationship between what pupils knew and thought about health and what they did about it. The amount of their health knowledge and the nature of their attitude toward certain health practices seemed to have little or no effect upon the type of health habits which these pupils indicated they practiced or the condition of their health as they appraised it. This situation was clearly demonstrated in the relative ranking of pupils, when classified according to schools, racial groups, and occupational status. Further corroboration was provided in the very low correlations which existed among the so-called mental factors (knowledge and attitude). This lack of relationship between knowledge and practice or between lip service and behavior is not new to educators or to others interested in developing citizenship, character, and high social standards, but the implications for those interested in improving the health of young people are important. It is evident that health education programs to be effective should be directed more definitely to health services, to influencing

actual behavior, and to a program which reaches the parents.

In the case of health knowledge and health attitude it was found that there was a definite tendency for the older pupils and the pupils in higher grades to excel the younger pupils and those in the lower grades. However, when these same age-groups and grade-groups were compared on the basis of health status and health practice, it was found that the younger pupils excelled the older pupils. In other words, on the basis of the health inventory employed in the present investigation, it was apparent that health knowledge and health attitude of high school pupils were better in the higher than in the lower grades, while at the same time the state of health of these pupils was poorer and their health habits or practices were less desirable. It would seem from these findings that pupils do learn facts about health and do learn the importance and worthwhileness of following certain health practices, as a result of their contact with the school program and their contact with other environmental agencies, such as the home. Yet they do not use their increased knowledge and their improved attitude to better their health condition or their health practices. An obvious conclusion is that the type of health program employed in the school is not sufficiently effective in influencing health behavior.

Furthermore, it would seem that factors other than school influence were important determinants of the type and nature of the pupils' health status, practice, knowledge, and attitude. Thus, when pupils were compared according to racial groups, economic status as measured by occupational level, and course-enrollment, the resulting scores showed a marked tendency for pupils with above-average intelligence, with parents of high occupational status, and with white parents to excel in all four of the health factors under investigation. Conversely, pupils from less economically favored communities, with parents of low occupational status, with below-average mental ability, and with parents of other racial strains tended to score low in health status, practice, knowledge, and attitude. It appears logical to assume that home background, socio-economic status, intelligence, and racial heritage contribute to or counteract, as the case may be, the nature or amount of these health factors. Since it is obvious that most health practices are carried on in the home, health instruction, to be effective, must be sufficiently dynamic to influence activities and customs outside the school —especially in the home. In order to compensate negative influences outside the school, the industrial arts and home economics departments, where the majority of pupils enrolled are of average

and below socio-economic status and mental ability, should give even greater emphasis to the various phases of the school health program.

The need for increased health services in the secondary schools was indicated by the fact that health condition and health habits were poorer instead of better on the part of pupils who had more health information and were in the higher grades. This extended health service should take the form of more frequent health examinations and increased facilities for the correction of defects. At the time of this investigation it was the practice in Los Angeles schools to examine all pupils in the tenth grade and to re-examine in later secondary school life only those who showed marked defects at the time of examination in the tenth grade. It is obvious from the data revealed in the health practice and status questionnaire that there was need for improvement in all pupils' health condition and habits in the later years of the high school. One of the best opportunities for teaching correct health practices is presented at the time of a health examination. Surely the most effective method of correcting poor health condition is through health examination followed by the proper corrective treatment, supervised by school clinics or a private physician. Health education, like character education or training is democracy, is not effective nor does it function in behavior and attitude, if emphasis is put upon the acquisition of facts and information. Knowledge and reasoning are never automatically carried over into correct behavior. To influence behavior, health education must provide experiences that have meaning and importance to the learner. A very effective means of providing such an experience in learning about health is the health examination, which, if given educational emphasis as well as diagnostic treatment, may well be one of the most important phases of the school health program. Such an examination to be fully effective must have proper follow-up in the form of clinical facilities or proper contact with the home to see that poor health condition or practices are corrected.

The school health program of the future should provide proper knowledge, strong motives, and experience in actual performance in order to counteract the competing interests, the difficulties, and the deficiences in the environment of pupils. Such a program should include, in addition to the health instructional program, health services including examinations and facilities for correction of defects, adequate health workers to insure cooperation of parents, and a dynamic health program throughout the entire school.

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EDITORIAL

The article on "County Supervisors of Special Education in Pennsylvania" by T. Ernest Newland is peculiarly interesting to this editor. Not only does it give cohesion and adequate skill and supervision to Special Education, but it gives it in areas where intensive supervision of most kinds is badly needed—the rural districts—and in these live one-fourth or more of the public school children.

Moreover, it is a start along a road that for years has been advocated by us. Health supervision and the various health services are largely lacking, and in most cases almost totally inadequate, in rural school districts. Supervisors in this field, both physicians and nurses, would make possible a real health service. Working in and intimately with the office of the county superintendent of schools, they would bring about definite correlation between health and the classroom and the parents. Included in this health supervision staff there also should be specialists in physical education and in health education.

Under guidance of the County Superintendent, there would evolve a health and physical education program intimately tied in with other educational class room activities which would have a real and beneficial effect on the health, welfare, and happiness of these children.

Financed by the richer resources of the state, as they should be, supervised and instructed by full time specially trained people,

who would live in or close to the districts they were serving, they would be much more welcome by teachers, pupils, and parents, and would receive more hearty co-operation than is yielded to state supervisors, no matter how large an army of them might be sent out from the capital. Much of the money now spent by some of our states on state supervisors could profitably be diverted to such a county or possibly consolidated district set up.

These county specialists would be real helpers and "workers in the vineyard" rather than the mere inspectors into which so many state supervisors deteriorate.

We realize that not all states have the county superintendent set up, but a large proportion of them do. In those states that do not have this system it is possible and feasible to set up supervisory districts for such construction and administration of a health and physical education program.

Whatever the basis, whether county, multiple-county or other district arrangement, we believe that at least a few things are a fundamental need for success. Those employed should be specially trained in their field, they should have a rural background, they should live in the area they serve, and they should be employed full time. Living in the area they would be "of us" rather than "over us".

The present arrangement of supervision—or should we say control—has in some states at least become a more or less formalized procedure of issuing rules, regulations, and orders. It is supervision by "directives." What the teachers in these small school districts need is not orders, nor even a syllabus, but help. C. H. K.

* * * * *

ABSTRACTS

Plans and Procedure in Protection of School Children,—*Basic Premise.* We must assume that we shall be bombed. Every community in the United States within 300 miles of the coast is a target area. We could be bombed today. Many things that "couldn't happen" have happened. Educators should take the initiative in providing for the safety of the lives and property in their care.

The educational program should be continued with as little interruption as is consistent with thorough preparations for safety.

Students Should Be in Shelters. All students except volunteer members of the Citizens Defense Corps should be in the best available shelters, under roof and behind walls.

School Buildings as Shelters. As a general rule, school buildings provide safer shelter than do homes. In comparison with private residences, school buildings in general have:

a. Thicker Walls. Most air-raid casualties are caused by bomb fragments and flying missiles. Therefore, thickness of walls is the most important single factor.

b. Better Construction.

c. Community Support. The resources of a community, and group labor if necessary, are available to improve the best shelters in school buildings.

d. Trained Personnel, Responsible Supervision, and Special Facilities.

Disadvantages of Certain Schools as Shelters. The preceding sections leave little room for exceptions. No schoolhouse should be abandoned in favor of an alternative shelter except for compelling reasons. Every school should be studied as an individual problem by the most competent local authorities. The building and its surroundings, considered together, form a single problem.

In any discussion of possible dismissal of students, the basic question must be: *Can the students safely reach safer shelters in the allowable time?* Ask this question also: *Will any safer shelters be available for immediate use?*

Relative Safety of Various Floors

The most sheltered parts of a school building should be selected as refuges and assigned to the extent of their safe capacity. The locations which offer the best protection against one result of aerial attack may be vulnerable to another. Many basements offer excellent protection against bomb fragments, but in the event of a gas attack would serve as collecting basins where the heavy war gases would settle.

The best rule at present is to seek excellent protection against fragments, glass, and other missiles as the first objective; then do everything possible to minimize the risk of injury from collapse; finally plan to provide some protection against gas in the chosen shelter areas.

Think of two additional principles — dispersion of students among as many safe shelters as the building affords, and multiple exists—and then evaluate the various floors of the building.

Basement. In general, corridors in basements afford excellent shelter. Basements furnish the majority of shelters in existing buildings in England. Many of these basement shelters in England have been reinforced. Wide basements which have no corridors, such as those used for recreation, are unsafe unless the ceiling is reinforced. A few scattered supporing columns are not sufficient.

First Floor. The first floor is subject to considerable danger from fragments and blast. If it must be used, the added precau-

tions against fragments and flying glass should be exceptionally thorough.

Top Floor. In buildings which have concrete roof slabs, the use of the top floor may be preferable to overcrowding students on other floors. If the building has more than a first and top floor, the intervening floors offer relatively greater safety.

Corridors. Glazed transoms and doors require attention. Glass may be removed or covered with wallboard firmly fastened on both sides of the door or transom.

In some buildings, if the corridor doors to classrooms remain closed, ventilation may be provided by opening smoke screen doors at stairwells and securing fresh air from open windows in stairwells or upper floors.

Classrooms. While classrooms are not preferred, other refuge space may be so inadequate in some buildings as to create dangerous overcrowding. Blank space at front walls and below windows may be utilized in such cases.

Morale and Other Considerations

All plans for the control of students must take cognizance of the fact that the greatest danger may be panic. Rushing for exits might readily cause casualties. Periodic air-raid drills will do much to prevent excitement. Examples of calmness and poise will instill similar attitudes in students. Do not try to enforce quiet. Let the students sing, or conduct other well-regulated entertainment.

Education of Parents. The reasons for keeping students at school during air raids should be explained to parents.

Night Occupancy. Night classes and night meetings present air-raid problems in many schools. Provision should be made for orderly and safe sheltering at night. Air-raid wardens thoroughly familiar with the local plans and premises should be on duty for such occasions.

Incendiary Bombs

Phosphorus incendiaries may be used on readily combustible targets. They are also useful in sabotage. Phosphorus is easily extinguished with water—but look out for reignition when dry again.

Thermite bombs burn out in one or two minutes. There is no use trying to put them out; the iron oxide supplies oxygen to the powdered aluminum. Handle the resulting fire by usual means.

Magnesium bombs have proved most successful to date. The small size has been the most widely used. Characteristics: silvery appearance—2.2 lb.; over-all length about 14 in.; diameter 2 in.—walls one-half in. thick—core contains thermite and starting mix-

ture—ignites on impact—thermite reacts at about 4500 deg. F.; stopped by about 4 in. of reinforced concrete or 6 in. of sand.

2.2 Pound Magnesium Bomb. Locate at once. Stay at a safe distance for the first minute. If you want to play safe against a possible explosive charge, wait 2 minutes. Use water spray or solid stream on bomb, depending on conditions. Officials should study recent OCD statement about extinquishing this bomb.

Incendiaries may enter any floor of a building. During a raid, fire watchers should be on every floor and in the attic.

Communication and Warning Signal. All schools even in remote areas, should have telephone service wherever it can be provided. In some cases, messenger service from the nearest telephone may be required, at least temporarily.

Existing equipment, such as the fire drill signal system, may be used for air-raid warning within the school provided it is used in a special and unmistakable way. There must be no possibility of confusing the air-raid warning with the ordinary fire drill signal.

Fire Precautions and Fire Fighting

Every school should be prepared to fight its own fires. City services may be interrupted. Water faucets and fire plugs are of no use if the water mains in the vicinity have been smashed by bombs.

Practically all fires are small at the start. Alert fire watchers and trained auxiliary firemen can prevent serious conflagrations.

Ready access to all attics should be provided. Openings need to be cut, then left covered ready for use. Ladders should be fixed at convenient locations in such a way that they will be there when needed.

Ways in which schools can help the general public in the Citizens Defense Corps work include (a) providing qualified instructors and facilities for training volunteers; (b) exhibiting the training film "Fighting the Fire Bomb;" (c) training more volunteers than are needed in the protection of their own school; (d) providing the technical advice of qualified staff members; (e) making emergency hospitalization and first-aid facilities available to the public; (f) supplying speakers and information. J. L. Graham, Supervisor, Public School Transportation and Buildings, State Department of Education, Tallahassee, Florida. School Board Journal, December, 1942, pp. 39-41, 50. Abstracted by Gertrude E. Cromwell.

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Dr. Charles C. Wilson,—Through a typographical error the abstract on "Physical Fitness Through Physical Education" appearing on page 78 of the March Journal was wrongly credited. The abstract was prepared by Charles C. Wilson, M.D.—Ed.

PROGRAM - ANNUAL MEETING
N. Y. STATE ASSOCIATION OF SCHOOL PHYSICIANS
Hotel Statler, Buffalo, N. Y. — Monday, May 3

***2:00 P.M.—CHINESE ROOM**

Presidential Address—
John E. Burke, M.D., Schenectady
Asst. Supt. of Schools in Charge of Health and Physical Education

Tuberculosis—Present Day Control Measures—
Homer Folks, New York City
Secretary, State Charities Aid Association
Discussion: Wm. E. Ayling, M.D., Syracuse
Director of School Health

Immunization Procedures—
Clarence A. Greenleaf, M.D., Olean
Director of School Health, Cattaraugus County
Discussion: Michael Levitan, M.D., Rome
Director of School Health

School Health Services—
Lillian DeArmit, M.D., Albany
Acting Chief, Bureau of Health Service
State Department of Health and Physical Education

DINNER AND BUSINESS MEETING—6:00 P.M.
Dr. John E. Burke, Presiding

***8:00 P.M.—CHINESE ROOM**

Today's Problems in Health Education—
Clair E. Turner, A.M., Sc.D., Dr. P.H., Cambridge, Mass.
Professor of Public Health, Massachusetts Institute of Technology
President, American School Health Association
Discussion: Charles H. Keene, M.D., Buffalo
Director of Health and Physical Education, University of Buffalo

Activities of State Medical Society re School Health—
O. W. H. Mitchell, M.D., Syracuse
Professor of Public Health, Syracuse University
Chairman, Council Committee on Public Health and Education
Discussion: J. G. Fred Hiss, M.D., Syracuse
Chairman, Sub-Committee on Youth Organizations

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*Open Meetings
Dr. Ayling, March 17, 1943

AMERICAN SCHOOL HEALTH ASSOCIATION

LUNCHEON MEETING*,—Gibson Hotel, Thursday, April 15, 1943—12:20
CINCINNATI'S HIGH SCHOOL VICTORY CORPS
PHYSICAL FITNESS PROGRAM

"How It Functions and Why It Is Successful From the Educator's Standpoint"

Dr. Orin Graff, Cincinnati Board of Education

"The Importance and Nature of the Medical Program"

Dr. Carl Wilzbach, Cincinnati Dept. of Health

"The Importance and Nature of the Dental Program"

Dr. E. Horace Jones, Cincinnati Board of Education and Cincinnati Dental Society

*To be held at the time of the National Convention of the American Association for Health, Physical Education, and Recreation.

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School Health Service Improved,—The Board of Regents and Dr. George D. Stoddard, Commissioner of Education of the State of New York, believing that the health of school children is of major importance in the present war, have issued certain directives to the Bureau of Health Service and to school administrators for improving the program to insure that every child will receive the benefit of at least the minimum program in school health service established by statute and Department Regulations.

In order to assist local school authorities, staff members of the Bureau of Health Service during September and October 1942, visited 130 schools and examined all pupils on Indian reservations. In the course of each visit, supervisors discussed the health service program with the school administrator and staff members. As a further help a letter was sent to principals, superintendents, presidents of boards of education and to school physicians, commending certain phases of the local program and pointing out other phases that need further study and action. Replies to date from school administrators indicate in detail what action has been taken regarding these recommendations, and frequent requests are made for additional advice or clarification of policies.

In spite of personnel shortages, a number of additional school nurse teachers and dental hygiene teachers have been added to school faculties this year. The physicians remaining in local communities are carrying on for those who are in military service.

The official annual reports for 1941-42 show:

Cities (exclusive of New York City, Buffalo, and Rochester)

Number of pupils registered	320,375
Number of pupils examined	287,283 or 89.6%

Number of defects found	254,850
Number of defects treated	155,291 or 60.9%
Villages	
Number of pupils registered	171,352
Number of pupils examined	163,364 or 95.3%
Number of defects found	132,193
Number of defects treated	82,399 or 62.3%

While audiometer tests have been required by statute for six years, 38 per cent of pupils in cities and villages were not tested in 1941-42.

Vision tests are likewise required by statute, and annual reports for 1941-42 show that 92 per cent of pupils in cities and villages have received these tests.

Dental health education is a major problem, and requires the immediate attention of school authorities, the Bureau reports. Progress is being made in many schools, but it is essential and urgent that all schools know the health status of each child. All community resources should then be utilized for the welfare of these children. The University of the State of New York Bulletin to the Schools, Vol. 29, No. 5, Jan. 1943, pp. 186-187.

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New Remedy for Scabies,—Percival used tetraethylthiuram monosulfide for treating 50 patients with scabies. It was non-irritant when applied as a pure powder and cutaneous idiosyncrasy was not encountered. It was curative in a 5 per cent liquid preparation; 25 per cent tetraethylthiuram monosulfide, 10 per cent of polyglycerol ricinoleate and 65 per cent of industrial methylated spirit. One part of this oil was added to four parts of water immediately before use. The 25 per cent concentration remained stable at room temperature, but crystallized at a lower temperature. Gentle heating redissolved the crystals. The diluted oil separates, and thus the required 5 per cent dilution was rubbed over the whole body, with the exception of the head, face and neck, twice a day for three days. British Medical Journal, G. H. Percival, 2, p. 541, Oct. 17, 1942, as abstracted in Journal of the American Medical Association, Vol. 121, No. 2, Jan. 9, 1943, pp. 156.

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Pablum is *Not* Off the Market,—Pabena, the new Pablum-like precooked oat cereal, does not replace Pablum. Pabena is now being marketed in addition to Pablum.

Pabena offers substantially all of the nutritional qualities of Pablum and all of its advantages of ease of preparation, convenience and economy. The base of Pabena is oatmeal (85%) which gives it

a fine flavor and offers variety to the diet. Would you like some of both for use in your own family? Mead Johnson & Company, Evansville, Ind., U. S. A.

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MEETINGS

American Association for Health, Physical Education, and Recreation at Cincinnati, Ohio, April 13-16, 1943. In cooperation, *Luncheon Program* of American School Health Association. p. 105.

New York State Association of School Physicians, in conjunction with the Medical Society of the State of New York, at Buffalo, N. Y., Monday, May 3, 1943. p. 104.